

Facts about

Condoms and Their Use in Preventing HIV Infection and Other STDs

With nearly 1 million Americans infected with HIV, most of them through sexual transmission, and an estimated 12 million cases of other sexually transmitted diseases (STDs) occurring each year in the United States, effective strategies for preventing these diseases are critical.

Refraining from having sexual intercourse with an infected partner is the best way to prevent transmission of HIV and other STDs. But for those who have sexual intercourse, latex condoms are highly effective when used consistently and correctly.

The correct and consistent use of latex condoms during sexual intercourse—vaginal, anal, or oral—can greatly reduce a person's risk of acquiring or transmitting STDs, including HIV infection. In fact, recent studies provide compelling evidence that latex condoms are highly effective in protecting against HIV infection when used for every act of intercourse.

This protection is most evident from studies of couples in which one member is infected with HIV and the other is not, i.e., "discordant couples." In a 2-year study of discordant couples in Europe, among 124 couples who reported *consistent* use of latex condoms, *none* of the uninfected partners became infected. In contrast, among the 121 couples who used condoms *inconsistently*, 12 (10 percent) of the uninfected partners became infected.

In another study, among a group of 134 discordant couples who did not use condoms at all or did not use

them consistently, 16 partners (12 percent) became infected. This contrasts markedly with infections occurring in only 3 partners (2 percent) of the 171 couples in this study who reported consistently using condoms over the 2-year period.

Condoms must be used *consistently* and *correctly* to provide maximum protection. *Consistent use* means using a condom with each act of intercourse. *Correct condom use* includes all of the following steps:

- Use a new condom for each act of vaginal, anal, or oral intercourse.
- Put on the condom as soon as erection occurs and before any vaginal, anal, or oral contact with the penis.
- Hold the tip of the condom and unroll it onto the erect penis, leaving space at the tip of the condom, yet ensuring that no air is trapped in the condom's tip.
- Adequate lubrication is important to prevent condom breakage, but use only water-based lubricants, such as glycerine or lubricating jellies (which can be purchased at any pharmacy). Oil-based lubricants, such as petroleum jelly, cold cream, hand lotion, or baby oil, can weaken the condom.
- Withdraw from the partner immediately after ejaculation, holding the condom firmly to the base of the penis to keep it from slipping off.

Myths About Condoms

Misinformation and misunderstanding persist about condom effectiveness. The Centers for Disease Control and Prevention (CDC) provides the following updated information to address some common myths about condoms. This information is based on findings from recent epidemiologic, laboratory, and clinical studies.

Myth #1: Condoms don't work

Some persons have expressed concern about studies that report failure rates among couples using condoms for pregnancy prevention. Analysis of these studies indicates that the large range of efficacy rates is related to incorrect or inconsistent use. In fact, latex condoms are highly effective for pregnancy prevention, but only when they are used properly. Research indicates that only 30 to 60 percent of men who claim to use condoms for contraception actually use them for every act of intercourse. Further, even people who use condoms every time may not use them correctly. Incorrect use contributes to the possibility that the condom could leak at the base or break.

Myth #2: Condoms frequently break

Some have questioned the quality of latex condoms. Condoms are classified as medical devices and are regulated by the Food and Drug Administration. Every latex condom manufactured in the United States is tested for defects before it is packaged. During the manufacturing process, condoms are double-dipped in latex and undergo stringent quality control procedures. Several studies clearly show that condom breakage rates in this country are less than 2 percent. Most of the breakage is likely due to incorrect usage rather than poor condom quality. Using oil-based lubricants can weaken latex, causing the condom to break. In addition, condoms can be weakened by exposure to heat or sunlight or by age, or they can be torn by teeth or fingernails.

Myth #3: HIV can pass through condoms

A commonly held misperception is that latex condoms contain "holes" that allow passage of HIV. Laboratory studies show that intact latex condoms provide a highly effective barrier to sperm and microorganisms, including HIV and the much smaller hepatitis B virus.

Myth #4: Education about condom efficacy promotes sexual activity

Five U.S. studies of specific sex education programs have demonstrated that HIV education and sex education which included condom information either had no effect upon the initiation of intercourse or resulted in delayed onset of intercourse; four studies of specific programs found that HIV/sex education did not increase frequency of intercourse, and a program that included resistance skills actually resulted in a decrease in the number of youth who initiated sex. In addition, a World Health Organization (WHO) review cited 19 studies of sex education programs that found no evidence that sex education leads to earlier or increased sexual activity in young people. In fact, five of the studies cited by WHO showed that such programs can lead to a delay or decrease in sexual activity.

In a recent study of youth in Switzerland, an AIDS prevention program focusing on condom use did not increase sexual activity or the number of sex partners. But condom use did increase among those who were already sexually active. A 1987 study of young U.S. men who were sent a pamphlet discussing STDs with an offer of free condoms did not find any increase in the youths' reported sexual activity.

Preventing HIV Infection and Other STDs

Recommended Prevention Strategies

Abstaining from sexual intercourse is the most effective HIV prevention strategy.

For individuals who are sexually active, the following are highly effective:

- Engaging in sexual activities that do not involve vaginal, anal, or oral intercourse
- Having intercourse only with one uninfected partner
- Using latex condoms correctly from start to finish with each act of intercourse

Other HIV Prevention Strategies

Condoms for Women

The female condom or vaginal pouch has recently become available in the United States. A small study of this condom as a contraceptive indicates a failure rate of 21-26 percent in 1 year among typical users; for those who use the female condom correctly and consistently, the rate was approximately 5 percent. Although laboratory studies indicate that the device serves as a mechanical barrier to viruses, further clinical research is necessary to determine its effectiveness in preventing transmission of HIV. If a male condom cannot be used, consider using a female condom.

Plastic Condoms

A polyurethane male condom was approved by FDA in 1991 and is now available in the United States. It is made of the same type of plastic as the female condom. The lab studies show that the new polyurethane condoms

have the same barrier qualities as latex. Lab testing has shown that particles as small as sperm and HIV cannot pass through this polyurethane material. A study of the effectiveness of this polyurethane condom for prevention of pregnancy and STDs is underway. The new polyurethane condoms offer an alternative for condom users who are allergic to latex. Also, polyurethane condoms can be made thinner than latex, have no odor, and are safe for use with oil-based lubricants.

Spermicides

Although studies indicate that nonoxynol-9, a spermicide, inactivates HIV in laboratory testing, it is not clear whether spermicides used alone or with condoms during intercourse provide protection against HIV. Therefore, latex condoms with or without spermicides should be used to prevent sexual transmission of HIV.

Making Responsible Choices

In summary, sexually transmitted diseases, including HIV infection, are preventable. The effectiveness of responsible prevention strategies depends largely on the individual. Whatever strategy one chooses, its effectiveness will depend primarily on consistent adherence to that choice.

For further information, contact:

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